UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,921	10/02/2003	Eric Brian Smith	29653-1/JD15669C	9580

23482 7590 04/28/2004

WILHELM LAW SERVICE, S.C.
100 W LAWRENCE ST
THIRD FLOOR
APPLETON, WI 54911

EXAMINER	
STORMER, RUSSELL D	

ART UNIT	PAPER NUMBER
3617	

DATE MAILED: 04/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/677,921	SMITH ET AL.
	Examiner	Art Unit
	Russell D. Stormer	3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 13-37* is/are rejected.

7)☒ Claim(s) *11 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/2/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-7, 9, 10, 13-15, 24-29, and 32-37 are rejected under 35 U.S.C. 103(a) as being obvious over Morgan in view of Challinger.

Morgan discloses a wheel assembly comprising a tire made of elastomeric material and having a cable ***a3*** embedded therein near the inner surface of the tire. The inner surface of the tire includes recesses on either side. See especially figures 2 and 4. The wheel comprises an inner flange having a central opening and an outer flange having first and second sides, an outer surface to receive the tire, a fixed side flange ***C*** or ***e***, and a separate removable second side flange ***C1*** or ***e2*** joined to the rim by fasteners. The first and second side flanges have greater diameter portions ***c2*** and ***e1, e3*** which are received in the recesses of the tire.

Only a single cable is shown, but it is well-known to use more than one cable in a tire base and therefore one of ordinary skill would have found it obvious to use multiple cables in order to better secure the tire to the rim.

Spokes are used to join the rim to the central hub or flange.

Challinger teaches a wheel assembly in which the hub or inner flange is joined to the rim or outer flange by a web such that the flanges and the web comprise a unitary structure. The web has openings therethrough, but is a single piece. See figures 4 and 5. From this teaching it would have been obvious to substitute a web for the spokes of Morgan joining the rim and the hub such that the inner flange, the outer flange, and the web of Morgan comprised a single unitary structure. Such a wheel structure is well-known and would eliminate some steps in the assembly of the wheel over one with spokes.

With respect to claim 2, it is inherent that the cables would be steel cables.

With respect to claims 9 and 10, the width of the lesser diameter portion of the outer flange would have been obvious as a design expedient based on the intended use of the wheel and tire assembly.

With respect to claims 14 and 15, the angle formed by the first and second abutment surfaces with eh lesser diameter portion is shown to be about 60 degrees, but those of ordinary skill in the art could readily determine a suitable range of angles depending on the intended use of the wheel assembly, the resiliency of the tire, the material of the tire, etc., and an angle between 60 degrees and 120 degrees would have been obvious.

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan in view of Challinger as applied to claim 1 above, and further in view of Bliss.

The bolt receiving holes of Morgan as modified by Challinger are not shown to be blind holes.

Bliss teaches the use of blind holes to receive the bolts 20 which secure the removable side flange 18. From this teaching it would have been obvious to use blind holes to receive the bolts ***D*** and ***E*** of Morgan since the since the fixed flanges ***C*** and ***e*** are heat-shrunk onto the rim ***B*** and would not need the bolts to remain fixed to the rim.

4. Claims 16-23, 30, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan in view of Challinger as applied to claims 1 and 6 above, and further in view of Ruf.

The wheel of Morgan as modified by Challinger is not described as being used on an endless track vehicle.

Ruf teaches a wheel comprising a tire 3 and side flanges 5 which are removable from the main body of the wheel. The wheel is disclosed as being used on an endless track vehicle as a running wheel, but those of ordinary skill would readily recognize that such a wheel could also be used as the driving wheel in a friction drive undercarriage assembly.

To use the wheel assembly of Morgan as modified by Challinger with the removable tire and flange on a tracked vehicle would have been obvious as taught by Ruf so that the tire could be easily replaced when worn.

Allowable Subj ct Matt r

5. Claims 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. This is a continuation of applicant's earlier Application No. 10/003894.

All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell D. Stormer whose telephone number is (703) 308-3768. The examiner can normally be reached on Monday through Friday, 9 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joe Morano can be reached on (703) 308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rds

April 24, 2004

RUSSELL D. STORMER
PRIMARY EXAMINER
4/24/04